Department of Toxic Substances Control
Fact Sheet

Frequently Asked Questions Regarding Paint Strippers containing Methylene Chloride

What is the Priority Product?
Any product sold or offered for sale in California for use as a paint or varnish remover, paint stripper and/or surface cleaner that contains methylene chloride**.**

Why was this product chosen?
Methylene Chloride (MeCI) is a carcinogen and neurotoxin and poses a risk to workers and "do-it-yourselfers." It is widely used in solvents and has proven fatal in well-documented cases. Between 2000 and 2011, at least 14 people have died from exposure to methylene chloride. It is an acute inhalation hazard, and prolonged skin contact can result in irritation or burns. A number of methylene chloride-free paint strippers are available.

How big is the potential problem from this product?
Paint stripper with methylene chloride is a common product sold at many stores. In 2006, the California Air Resources Board estimated that 9.68 tons of methylene chloride from paint strippers was released each day in California. In 2011 there were 337 exposures to this product reported to the National Poison Data System. Available data suggests that concentration of methylene chloride in paint strippers is generally high.

Is this product regulated elsewhere?
Some regulatory programs may address one or more of these impacts but not all of the health and environmental impacts. DTSC's Safer Consumer Products Program addresses impacts from a product *throughout its entire life cycle*.

Different entities regulate different methylene chloride hazards or exposures in different applications. The federal Occupational Safety and Health Administration (OSHA) has set standards for occupational use of methylene chloride. OSHA's health standard includes limits on methylene chloride exposure and requires employers to communicate hazards, designate areas where methylene chloride concentrations may be high, and in some cases, require that respirators be used. (See https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=standards&p_id=10094.)

The European Union has banned the sale of paint strippers containing more than 0.1 percent methylene chloride by weight. This concentration is significantly lower than products currently sold in California. As of 2011, businesses using this chemical in paint stripping operations must notify the U.S. Environmental Protection Agency and certify that they have implemented appropriate best-management practices to minimize emissions. In addition, the California South Coast Air Quality Management District has Volatile Organic Compound (VOC) emission regulations that may apply to methylene chloride paint strippers, but they are not specific to methylene chloride and do not restrict sales to consumers.

Are there possible safer alternatives?
A number of alternatives exist. Paint strippers containing benzyl alcohol may be an alternative for some applications. Benzyl alcohol has fewer acute hazards and is not a known carcinogen. Exposure to benzyl alcohol may pose some respiratory risk, but avoids the acute hazards and exposure to a known carcinogen. Another alternative currently in use, n-methyl pyrrolidone (NMP), is a known reproductive toxicant and can irritate skin and eyes. NMP is on DTSC's list of Candidate Chemicals and its use poses greater potential risks than some existing alternatives.
Many manufacturers produce paint strippers containing methylene chloride. The California Department of Public Health (CDPH) provides a partial list of paint strippers with Methylene Chloride. To access the list and other helpful information on methylene chloride and paint strippers, see:

http://www.cdph.ca.gov/programs/ohb/Pages/methylenechloride.aspx

http://www.cdph.ca.gov/programs/hesis/Documents/MethyleneChlorideAlert.pdf

http://www.cdph.ca.gov/programs/hesis/Documents/MethyleneChlorideAlertSpanish.pdf

What other products contain this chemical?
Methylene chloride is used in various industrial processes in many different industries including paint stripping, pharmaceutical manufacturing, paint remover manufacturing, and metal cleaning and degreasing.

What are the symptoms of exposure?
The following symptoms may occur immediately or shortly after exposure to levels of methylene chloride at or above relatively low concentrations in air:

- Increased levels of carbon monoxide in the blood which may cause fatigue, shortness of breath or chest pain;
- Drowsiness, headache, a feeling of being "drunk;" and
- Eye, skin, and lung irritation.

Longer term effects of methylene chloride exposure:

Cancer: Laboratory animals have developed cancer after long-term exposures to methylene chloride. The U.S. Environmental Protection Agency considers methylene chloride to be a "probable" human carcinogen.

Organ Systems: Since methylene chloride changes to carbon monoxide in the body, it can damage the heart and nervous system.

How do I reduce exposure risk if I continue to use the product?

According to CDPH, avoiding use in enclosed spaces is advised. Exhaust ventilation and fresh air exchange are essential, in addition to the use of a respirator and polyvinyl alcohol (PVA) gloves for chemical resistance. For further information, see CDPH's web page (http://www.cdph.ca.gov/programs/ohb/Pages/methylenechloride.aspx) and consult manufacturers for directions.

Should I dispose of the product? How can I properly dispose of it?

Methylene chloride should not be disposed of in the municipal solid waste stream. Consult your municipal solid waste authority or your local Household Hazardous Waste program for guidance on disposal. Links to local Household Hazardous Waste programs may be found here http://ccelearn.csus.edu/mercurylamp/content/resources5.htm.